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specified for that event in the manual required by §125.71.

- (d) This section does not apply to airplanes used solely within the State of Hawaii, within the State of Alaska, within that part of Canada west of longitude 130 degrees W, between latitude 70 degrees N, and latitude 53 degrees N, or during any training, test, or ferry flight.
- (e) Without regard to any other provision of this part, an alternate electrical power supply is not required for airborne weather radar equipment.

§ 125.224 Traffic Alert and Collision Avoidance System.

- (a) After December 30, 1993, no person may operate a large airplane that has a passenger seating configuration, excluding any pilot seat, of more than 30 seats unless it is equipped with an approved TCAS II traffic alert and collision avoidance system and the appropriate class of Mode S transponder.
- (b) The manual required by §125.71 of this part shall contain the following information on the TCAS II system required by this section.
 - (1) Appropriate procedures for-
- (i) The operation of the equipment; and
- (ii) Proper flightcrew action with respect to the equipment.
- (2) An outline of all input sources that must be operating for the TCAS II to function properly.

[Doc. No. 25355, 54 FR 951, Jan. 10, 1989, as amended by Amdt. 125–14, 55 FR 13247, Apr. 9, 1990]

§125.225 Flight recorders.

(a) Except as provided in paragraph (d) of this section, after October 11, 1991, no person may operate a large airplane type certificated before October 1, 1969, for operations above 25,000 feet altitude, nor a multiengine, turbine powered airplane type certificated before October 1, 1969, unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The following information must be able to be determined within the ranges, accuracies, resolution, and recording intervals specified in appendix D of this part:

- (1) Time;
- (2) Altitude;
- (3) Airspeed;
- (4) Vertical acceleration;
- (5) Heading:
- (6) Time of each radio transmission to or from air traffic control;
 - (7) Pitch attitude;
 - (8) Roll attitude;
 - (9) Longitudinal acceleration;
- (10) Control column or pitch control surface position; and
 - (11) Thrust of each engine.
- (b) Except as provided in paragraph (d) of this section, after October 11, 1991, no person may operate a large airplane type certificated after September 30, 1969, for operations above 25,000 feet altitude, nor a multiengine, turbine powered airplane type certificated after September 30, 1969, unless it is equipped with one or more approved flight recorders that utilize a digital method of recording and storing data and a method of readily retrieving that data from the storage medium. The following information must be able to be determined within the ranges, accuracies, resolutions, and recording intervals specified in appendix D of this part:
 - (1) Time;
 - (2) Altitude;
 - (3) Airspeed;
 - (4) Vertical acceleration;
 - (5) Heading;
- (6) Time of each radio transmission either to or from air traffic control;
 - (7) Pitch attitude;
 - (8) Roll attitude;
 - (9) Longitudinal acceleration;
 - (10) Pitch trim position;
- (11) Control column or pitch control surface position;
- (12) Control wheel or lateral control surface position;
- (13) Rudder pedal or yaw control surface position:
 - (14) Thrust of each engine;
- (15) Position of each trust reverser;
- (16) Trailing edge flap or cockpit flap control position; and
- (17) Leading edge flap or cockpit flap control position.
- (c) After October 11, 1991, no person may operate a large airplane equipped with a digital data bus and ARINC 717